AMENDMENTS TO THE CLAIMS

Docket No.: 0649-0900P

The listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

- 1. (Currently Amended) An image pickup apparatus, comprising:
- a solid-state image pickup device having high-sensitivity pixels and lowsensitivity pixels, a photometric characteristic of an output of the high-sensitivity pixels being different from that of the low-sensitivity pixels, wherein

the high-sensitivity pixels have a first high-sensitivity exposure value range in which they function before becoming saturated and a second high-sensitivity exposure value range in which they function before becoming saturated and no exposure value in the first highsensitivity exposure value range overlaps with an exposure value in the second high-sensitivity exposure value range,

the low-sensitivity pixels have a first low-sensitivity exposure value range in which they function before becoming saturated and a second low-sensitivity exposure value range in which they function before becoming saturated and no exposure value in the first low-sensitivity exposure value range overlaps with an exposure value in the second lowsensitivity exposure value range,

the exposure value at which the low-sensitivity pixels begin to function in the first low-sensitivity exposure value range coincides with ion No. 10/618,699 Docket No.: 0649-0900P

the exposure value at which the high-sensitivity pixels become saturated in the first high-sensitivity exposure value range, and

the exposure value at which the low-sensitivity pixels begin to function in the second low-sensitivity exposure value range coincides with the exposure value at which the high-sensitivity pixels become saturated in the second high-sensitivity exposure value range;

control means for (i) calculating an exposure value based on values of signal detected by said high-sensitivity pixels operating in the first high-sensitivity exposure value range and values of signal detected by said low-sensitivity pixels operating in the first low-sensitivity exposure value range, which are output from said solid-state image pickup device in a first single instance of photometry, and (ii) when a correct exposure value cannot be obtained in the first single instance of photometry due to saturation of both the high-sensitivity pixels and the low-sensitivity pixels, calculating an exposure value based on values of signal detected by said high-sensitivity pixels operating in the second high-sensitivity exposure value range and values of signal detected by said low-sensitivity pixels operating in the second low-sensitivity exposure value range, which are output from said solid-state image pickup device in a second subsequent single instance of photometry, where during each of the first and second instance of photometry, aperture and electronic shutter speed are not changed; and

signal processing means for reading data of an image picked up by said solid-state image pickup device and processing according to the <u>calculated</u> exposure value.

2. (Currently Amended) An image pickup apparatus, comprising:

image pickup means for picking up a subject image;

received light quantity detecting means having high-sensitivity pixels and low-sensitivity pixels, a photometric characteristic of an output of the high-sensitivity pixels being different from that of the low-sensitivity pixels, wherein

the high-sensitivity pixels have a first high-sensitivity exposure value range in which they function before becoming saturated and a second high-sensitivity exposure value range in which they function before becoming saturated and no exposure value in the first high-sensitivity exposure value range overlaps with an exposure value in the second high-sensitivity exposure value range.

the low-sensitivity pixels have a first low-sensitivity exposure value range in which they function before becoming saturated and a second low-sensitivity exposure value range in which they function before becoming saturated and no exposure value in the first low-sensitivity exposure value range overlaps with an exposure value in the second low-sensitivity exposure value range,

the exposure value at which the low-sensitivity pixels begin to function in the first low-sensitivity exposure value range coincides with the exposure value at which the high-sensitivity pixels become saturated in the first high-sensitivity exposure value range, and

the exposure value at which the low-sensitivity pixels begin to function in the second low-sensitivity exposure value range coincides with

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the exposure value at which the high-sensitivity pixels become saturated in the second high-sensitivity exposure value range; and

control means for (i) calculating an exposure value based on signal showing received light quantity detected by said high-sensitivity pixels operating in the first highsensitivity exposure value range and signal showing received light quantity detected by said low-sensitivity pixels operating in the first low-sensitivity exposure value range, which are output from said received light quantity detecting means device in a first single instance of photometry, and (ii) when a correct exposure value cannot be obtained in the first single instance of photometry due to saturation of both the high-sensitivity pixels and the low-sensitivity pixels, calculating an exposure value based on values of signal detected by said high-sensitivity pixels operating in the second high-sensitivity exposure value range and values of signal detected by said low-sensitivity pixels operating in the second low-sensitivity exposure value range, which are output from said solid-state image pickup device in a second subsequent single instance of photometry, and controlling said image pickup means to pick up a subject image according to the exposure value, where during each of the first and second instance of photometry, aperture and electronic shutter speed are not changed.

3. (Currently Amended) A photometer which calculates a exposure value of the image pickup apparatus, comprising:

received light quantity detecting means having high-sensitivity pixels and low-sensitivity pixels, a photometric characteristic of an output of the high-sensitivity pixels being different from that of the low-sensitivity pixels, wherein

the high-sensitivity pixels have a first high-sensitivity exposure value range in which they function before becoming saturated and a second high-sensitivity exposure value range in which they function before becoming saturated and no exposure value in the first high-sensitivity exposure value range overlaps with an exposure value in the second high-sensitivity exposure value range.

the low-sensitivity pixels have a first low-sensitivity exposure value range in which they function before becoming saturated and a second low-sensitivity exposure value range in which they function before becoming saturated and no exposure value in the first low-sensitivity exposure value range overlaps with an exposure value in the second low-sensitivity exposure value range.

the exposure value at which the low-sensitivity pixels begin to function in the first low-sensitivity exposure value range coincides with the exposure value at which the high-sensitivity pixels become saturated in the first high-sensitivity exposure value range, and

the exposure value at which the low-sensitivity pixels begin to function in the second low-sensitivity exposure value range coincides with the exposure value at which the high-sensitivity pixels become saturated in the second high-sensitivity exposure value range; and

calculating means for (i) calculating the exposure value based on signal showing received light quantity detected by said high-sensitivity pixels operating in the first high-sensitivity exposure value range and signal showing received light quantity detected by

said low-sensitivity pixels operating in the first low-sensitivity exposure value range, which are output from the received light quantity detecting means device in a first single instance of photometry, and (ii) when a correct exposure value cannot be obtained in the first single instance of photometry due to saturation of both the high-sensitivity pixels and the low-sensitivity pixels, calculating an exposure value based on values of signal detected by said high-sensitivity pixels operating in the second high-sensitivity exposure value range and values of signal detected by said low-sensitivity pixels operating in the second low-sensitivity exposure value range, which are output from said solid-state image pickup device in a second subsequent single instance of photometry, where during each of the first and second instance of photometry, aperture and electronic shutter speed are not changed.

Claims 4 – 6 (Canceled)

- 7. (Previously Presented) The image pickup apparatus of claim 1, wherein each pixel includes a high-sensitivity pixel and a low-sensitivity pixel.
- 8. (Previously Presented) The image pickup apparatus of claim 2, wherein each pixel includes a high-sensitivity pixel and a low-sensitivity pixel.
- 9. (Previously Presented) The photometer of claim 3, wherein each pixel includes a high-sensitivity pixel and a low-sensitivity pixel.